

To.
Jiping Lu
Primary Examiner
Art Unit 3749

From.
Ilio Bertolami
Sept 28, 2002.

Thank-you for your review and clarification. I have included prior art in the diagrams as well as limiting the Claims to reflect more accurately what is claimed as new.

With reference to your Point 10.

Bourne (U.S. Pat. 37,382), attempts to control the fire's intensity, once desired temperature has been reached, and prevent excessive temperature build-up by use of steam pressure and levered weights to control "doors G, g which can control the air flow to the flame chamber," to reduce the flames intensity. My system responds advantageously to an already regulated flame as exists in modern gas-fired water-heaters, by minimizing the air flow during the flame-out period, after the tank has been heated, by reducing the air-flow that would naturally extract air heated by the hot interior of the tank and out the exhaust.

With reference to your point 12.

Garms (U.S. Pat. 5,967,138), (FIRE SAFETY COLLAR FOR GAS WATER HEATERS), and Vollmar (U. S. Pat. 5,918,591) (GAS WATER HEATER SAFETY SHIELD) are, as their name suggests, safety shields, attempting to prevent other flammable fluids and heavier than air gasses from entering the gas burning chamber and do not function to improve efficiency by reducing heat loss due to excessive air flow during flame-out periods.

Hall (U.S. Pat. 5,085,205) (FUEL-FIRED WATER HEATER WITH COMBINATION DRAINAGE PAN AND COMBUSTION AIR FLOW CONTROL APPARATUS), claimed the identical advantage as Garms and Vollmar, with the addition of a drain pan, in a patent granted six years earlier. All three of these patents claim the same function by virtually the same means.

Flick (U.S. Pat. 6,003,507) shows a control valve for a gas fired fireplace with a manually controlled vent that attempts to increase air flow to more effectively increase heat extracted from the fireplace, the reverse effect of my claim of a self-regulating device that functions to reduce the heat loss sustained in the tank.



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The prospect of adapting Flick's mechanism to Garms', Vollmar's and Hall's to achieve the effect, of continuous regulation, the intent of my invention, would require fundamental modification to these devices, over and above installing the Flick designed vent, such as sealing the upper edge of all three systems, and, as well, would require an operator to manually regulate the manually operated vent on a constant basis as it operated, a prospect neither feasible nor intended by Flick.

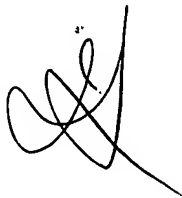
With reference to your Point 13.

Fritz (U.S. Patent 6,318,403, shows a check valve for the control of water and has nothing to do with air control, the subject of my claim

For the above reasons I see no cause to consider the previous inventions cited as having pre-established the function of my invention. I have studied and considered all the other information and suggestions carefully and trust I have been able to satisfy your concerns with this revised submission.

Thank-you for your attention.

Sincerely

A handwritten signature in black ink, consisting of a series of loops and a long horizontal stroke extending to the right.